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ABSTRACT

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A DESCRIPTIVE NOTE ON MALAGASY VERBAL COMPLEMENTATION AND THE BINDING HIERARCHY:

With Special Reference to the Occurrence of the Complementizer *fa* *

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Abstract: The aim of the present paper is to describe verbal complementation in Malagasy and to consider how the Malagasy data reflect the "binding hierarchy" proposed by Givón (1980). It will be shown that the Malagasy data provide support for the hierarchy and that the occurrence of the complementizer *fa* can be accounted for in terms of the strength of binding of the main-clause verb.

1. Introduction

Malagasy is an Austronesian language spoken in Madagascar. [1] Its basic word order is VOS: [2]

(1) a. natory aho
past-sleep 1sg(nom)
'I slept'

b. nahita ahy ianao
past-see 1sg(acc) 2sg(nom)
'You saw me'

c. nahita anao aho
past-see 2sg(acc) 1sg(nom)
'I saw you'

The cases are distinguished in the personal pronoun system, namely, nominative, accusative, and genitive. The genitive forms are cliticized to the noun:

(2) trano-ko
house-1sg(gen)
'my house'

Genitive forms can also occur as clitics on verbs to express non-subject agent. Verbs divide as to whether they can take an argument in the genitive or not, and those that can are called "non-active" and those that can't are called "active":

(3) a. mividy mofo ho'an ny ankizy aho (active)
buy bread for the child 1sg(nom)
'I am buying bread for the child'

b. ividiana-ko mofo ny ankizy (non-active)
bought for-1sg(gen) bread the child
'The child is bought bread for by me'
------ Keenan (1976:256)

The Malagasy conjunction *fa* has various senses, as illustrated in (4): [3]

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(4) a. Mahafantatra aho fa handeha any NY izy.
pres-know 1sg(nom) that fut-go to NY 3sg(nom)
'I know that s/he will go to NY'
b. Namela azy handeha any NY aho, fa tsy nandeha izy
past-allow 3sg(acc) fut-go to NY I, but NEG past-go 3sg(nom)
'I allowed him to go to NY, but he didn't'
c. Tsy nandeha aho fa avy ny orana.
NEG past-go 1sg(nom) because fall the rain
'I didn't go because it rained'

In (4a), *fa* is used as a complementizer, introducing the subordinate clause of the verb *mahafantatra* 'know'. In (4b), *fa* is used as a conjunction 'but'. In (4c), *fa* is used to mean 'because'.

The aim of the present paper is to describe verbal complementation in Malagasy and to consider how Malagasy complementation reflects the "binding hierarchy" proposed by Givón (1980, 1990). Special attention is given to the consideration of the semantic conditions that govern the appearance of *fa* as a complementizer. The organization of the paper is as follows: §2 describes three types of complement clauses in Malagasy and discusses what kinds of verbs can take each complement type. §3 shows how the three types of complement clauses reflect the binding hierarchy and how the occurrence of *fa* may be accounted for. §4 comprises the conclusion.

2. Three Types of Verbal Complement Structures

This section describes three types of Malagasy verbal complementation and considers the syntactic/semantic characteristics of each type.

Type A

Consider the following pair:

(5) a. Nilaza i Koto hoe "tia-ko i Soa"
past-say Koto QUOT like-1sg(gen) Soa
Koto said, "I like Soa"
b. Nilaza i Koto fa tia an'i Soa izy
past-say Koto that like ACC-Soa 3sg(nom)
'Koto said that he likes/liked Soa'

(5a) and (5b) represent direct speech and indirect speech, respectively. In (5b), *Nilaza* is the main-clause verb and *i Koto* is the main-clause subject. The *fa*-clause is the complement clause selected by the main-clause verb *nilaza*. The sentence has the word order VSO, where O is a complement clause headed by *fa*. [4] I will call this complementation structure Type A. Let us take a look at other verbs that can take a Type A complement:

(6) Mino aho fa handeha any NY izy.
pres-believe 1sg(nom) COMP fut-go to NY 3sg(nom)
'I believe that s/he will go to NY'
(7) Mahafantatra aho fa handeha any NY izy.
pres-know 1sg(nom) COMP fut-go to NY 3sg(nom)
'I know that s/he will go to NY'
(8) faly aho fa handeha any NY izy
happy 1sg(nom) COMP fut-go to NY 3sg(nom)
'I am happy that s/he will go to NY'
(9) Nandre aho fa handeha any NY izy.

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past-hear 1sg(nom) COMP fut-go to NY 1sg(nom)
'I heard that s/he is going to NY'

(10) Nahita aho fa namitaka ahy izy
past-see 1sg(nom) COMP past-cheat 1sg(acc) 3sg(nom)
I found out that s/he cheated me'

(11) Nanapakevitra aho fa handeha any NY izy
past-decide 1sg(nom) COMP fut-go to NY 3sg(nom)
'I decided that s/he should go to NY'

(12) Manaiky isika fa mahay mihira tsara indrindra izy
agree 1pl(incl,nom) COMP able to sing good most 3sg(nom)
'We agree that s/he is the best singer'

(13) Manantena i Koto fa hahita an'i Soa aho
hope Koto COMP fut-see ACC-Soa 1sg(nom)
'Koto hopes that I will see Soa'

(14) Mahatadidy aho fa nandeha any NY izy.
remember 1sg(nom) COMP past-go to NY 3sg(nom)
'I remember that s/he went to NY'

(15) Nanadino aho fa nandeha any NY izy.
past-forget 1sg(nom) COMP past-go to NY 3sg(nom)
'I forgot that s/he went to NY'

In the above examples, *fa* is obligatorily present and cannot be omitted. The verb *tia* ('like'), however, can occur with or without *fa* : [5]

(16) Tiako (fa) hianatra teny angilisy izy
like-1sg(gen) (COMP) fut-study English 3sg(nom)
'(Lit.) I like that s/he will study English'

Examples (6)-(16) suggest that the Type A complement clause is just like an independent/main clause in terms of VOS word-order. The complement-clause verb is tensed and tense agreement does not generally exist between the main-clause verb and the complement-clause verb: [6]

(17) Mahafantatra aho fa {mandeha/nandeha/handeha} any NY i Koto.
pres-know 1sg(nom) COMP {pres/past/fut-go} to NY Koto
'I know that Koto {goes/went/will go} to NY'

There are cases, however, where the Type A complement clause becomes less like an independent/main clause. We have so far seen examples where the main-clause subject and the complement-clause subject are non-coreferential; when the two are coreferential, the complement-clause subject may not overtly be expressed. [7] Compare, for example, (12) and (13) with (18) and (19), respectively:

(18) Nanaiky isika fa hanomboka aloha (*isika)
past-agree 1pl(incl,nom) COMP fut-start early
'We agreed that we should start early'

(19) Manantena aho fa hahita an'i Koto (*aho)
pres-hope 1sg(nom) COMP fut-see Koto
'I hope that I will see Koto'

To sum up the properties of Type A complementation:

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(20) a. The sentence has the VSO word order, with O being a complement clause headed by *fa*.
b. The complement clause has the same word order as the basic main clause (i.e., VOS).
c. The complement-clause subject is unrestricted in terms of coreference with the main-clause subject. The complement-clause subject may not be expressed when it is coreferential with the main-clause subject.
d. The complementizer *fa* is obligatory except with the verb *tia* ('like').
e. The complement clause is tensed. No intrinsic tense agreement exists between the main-clause verb and the complement-clause verb.

Type B

It was observed in (18) and (19) that the complement-clause subject may not be expressed when it is coreferential with the main-clause subject. There is another way of coding the situation where the complement-clause subject/agent is coreferential with the main-clause subject/agent. Compare the following pair:

(21) a. Nanaiky isika fa hanomboka aloha (=(18))
past-agree 1pl(incl,nom) COMP fut-start early
'We agreed that we should start early'
b. Nanaiky (fa) hanomboka aloha isika
past-agree (COMP) fut-start early 1pl(incl,nom)
'We agreed to start early'

On the surface, it is not clear whether *isika* in (21b) is main-clause subject or complement-clause subject; however, Randriamasimanana (1986:497-498) provides syntactic evidence that it is the complement-clause subject, rather than the main-clause subject, that undergoes deletion. Assuming his argument, then, (21b) has the word order VOS, where O is a complement clause, which is optionally headed by *fa* and has no overt subject. (21a) and (21b), on the other hand, have in common that the complement clause is tensed. I will call the complementation pattern exemplified in (21b) Type B. [8]

Let us look at more examples of Type B complementation. Just like *manaiky* ('agree'), verbs *manapakevitra* ('decide') and *manantena* ('hope') can take a Type B complement as well as a Type A complement. Compare (11) and (13) with (22) and (23), respectively:

(22) Nanapakevitra (fa) handeha any NY aho
past-decide (COMP) fut-go to NY 1sg(nom)
'I decided to go to NY'
(23) Manantena (fa) hahita an'i Koto aho
pres-hope (COMP) fut-see ACC-Koto 1sg(nom)
'I hope to see Koto'

Notice that in (21)-(23), the complementizer *fa* is optional in this construction, unlike the Type A complement, where *fa* is generally obligatory. [9]

The verbs *mahatadidy* ('remember'), *manadino* ('forget') and *tia* ('like') can take a Type B complement as well as a Type A complement: however, unlike (21)-(23), they cannot have *fa* in Type B complement:

(24) Nahatadidy (*fa) nividy gazety aho
past-remember past-buy newspaper 1sg(nom)

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'I remembered to buy a newspaper'

(25) Nanadino (*fa) nitsidika ny rova aho
past-forget past-visit the palace 1sg(nom)
'I forgot to visit the palace'

(26) Tia (*fa) miteny frantsay aho [10]
like pres-speak French 1sg(nom)
'I want to speak French'

We have so far seen verbs that can take both Type A and Type B complements. The following are examples where the verb can take a Type B complement, but not a Type A complement:

(27) Nikasa (*fa) hianatra teny angilisy aho
past-intend fut-study English 1sg(nom)
'I intended to study English'
cf.*Nikasa aho fa hianatra teny angilisy

(28) Nanandrana (*fa) nianatra teny angilisy aho
past-try past-study English 1sg(nom)
'I tried to study English'
cf.*Nanandrana aho fa nianatra teny angilisy

(29) Nanomboka (*fa) nianatra teny angilisy izy
past-begin past-study English 3sg(nom)
'S/he began to study English'
cf.*Nanomboka izy fa nianatra teny angilisy

(30) Nahavita (*fa) nianatra teny angilisy izy
past-finish past-study English 3sg(nom)
'S/he finished studying English'
cf. *Nahavita izy fa nianatra teny angilisy.

(31) Nanajanona (*fa) nianatra teny angilisy izy
past-stop past-study English 3sg(nom)
'S/he stopped studying English'
cf. *Nanajanona izy fa nianatra teny angilisy.

Unlike Type A complementation, there exists tense agreement between the main-clause verb and the complement-clause verb; for example, it is reported by the consultant that the main-clause verb tense and the complement-clause verb tense have to agree for verbs such as 'try', 'begin' and 'stop'. [11]

To sum up the syntactic characteristics of Type B complementation:

(32) a. The sentence has the VOS word order, where O is a complement clause
b. *fa* is optionally present for some verbs but not for others.
c. The complement clause lacks an overt subject.
d. The complement clause is tensed, and tense agreement exists between the main-clause verb and the complement-clause verb.
e. The complement-clause subject/agent is interpreted as coreferential with the main-clause subject/agent.

Type C

Some verbs allow the following two types of complementation:

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(33) a. Mino aho fa handeha any NY izy. (=(6))
pres-believe 1sg(nom) COMP fut-go to NY 3sg(nom)
'I believe that he will go to NY'

b. Mino azy handeha any NY aho.
pres-believe 3sg(acc) fut-go to NY 1sg(nom)
'I believe him to go to NY'

(34) a. Mahafantatra aho fa handeha any NY izy. (=(7))
pres-know 1sg(nom) COMP fut-go to NY 3sg(nom)
'I know that he will go to NY'

b. Mahafantatra azy handeha any NY aho.
pres-know 3sg(acc) fut-go to NY 1sg(nom)
'I know him to go to NY'

The (a) examples of (33) and (34) have Type A complements. The (b) examples of (33) and (34) have the word order VOS, with O being a complement clause, where its agent is expressed as the main-clause object, i.e., *azy* (3sg acc). I will call this complementation structure Type C. [12] Notice, however, that the complement-clause verb is tensed in the (b) examples. Here are some more examples of Type C complementation:

(38) Nilaza an'i Soa handeha any NY aho. (cf.(5b))
past-say ACC-Soa fut-go to NY 1sg(nom)
'I talked about Soa going to NY'

(39) Nandre azy niteny angilisy aho. (cf. (9))
past-hear 3sg(acc) past-speak English 1sg(nom)
'I heard him speaking English'

(40) Nahita azy namitaka ahy aho. (cf. (10))
past-see 3sg(acc) past-cheat 1sg(acc) 1sg(nom)
'I found him to have cheated me'

(41) Manantena ahy hahita an'i Soa i Koto (cf. (13))
hope 1sg(acc) fut-see ACC-Soa Koto
'Koto hopes for me to see Soa'

(42) Mahatadidy azy nandeha any NY aho. (cf.(14))
pres-remember 3sg(acc) past-go to NY 1sg(nom)
'I remember that he went to NY'

(43) Nanadino azy nandeha any NY aho. (cf.(15))
past-forget 3sg(acc) past-go to NY 1sg(nom)
'I forgot that he went to NY'

(44) Tia azy hianatra teny angilisy aho (cf. (16))
like 3sg(acc) fut-study English 1sg(nom)
'I want him to study English'

There are some verbs that can take a Type A complement, but not a Type C complement:

(45) *Faly azy handeha any NY aho. (cf. (8))
happy 3sg(acc) fut-go to NY 1sg(nom)
'I'm happy that he will go to NY'

(46) *Nanapakevitra azy handeha any NY aho. (cf. (11))
past-decide 3sg(acc) fut-go to NY 1sg(nom)
'I decided that s/he should go to NY'

(47) *Manaiky azy mahay mihira tsara indrindra isika (cf. (12)) [13]
pres-agree 3sg(acc) able sing good most 1pl(incl,nom)
'We agree that s/he is the best singer'

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Type C complements can be used to express causative meanings. There are basically two ways of expressing causative in Malagasy: morphological causative and periphrastic causative. Morphological causative is made by prefixing *amp(a)-* to the base of the verb: [14]

(48) N-amp-andeha azy any NY aho
past-CAUS-go 3sg(acc) to NY 1sg(nom)
'I made him go to NY'

In periphrastic causative, verbs such as *manery /motere-* ('force', 'order', 'make') and *mamela /avela-* ('allow', 'let') are used. In (49) and (50), the (a) examples use a Type A complement and the (b) examples use a Type C complement: [15]

(49) a. Notereko (*fa) hividy fiarakodia izy
past-force-1sg(gen) fut-buy car 3sg(nom)
'I forced him to buy a car/I made him buy a car'
b. Nanery azy hividy fiarakodia aho
past-force 3sg(acc) fut-buy car 1sg(nom)
'I forced him to buy a car/I made him buy a car'

(50) a. Navelako (*fa) {handeha/nandeha} any NY izy
past-allow-1sg(gen) {fut-go/past-go} to NY 3sg(nom)
'I allowed him to go to NY/I let him go to NY'
b. Namela azy {handeha/nandeha} any NY aho
past-allow 3sg(acc) {fut-go/past-go} to NY 1sg(nom)
'I allowed him to go to NY/I let him go to NY'

Note that *fa* is impossible in (49a) and (50a). Also, it seems to be the case that only non-active counterparts can take a Type A complement, while only active counterparts can take a Type C complement. Compare (49) and (50) with the following:

(51) a. ?Nanery aho fa hividy fiarakodia izy
past-force 1sg(nom) COMP fut-buy car 3sg(nom)
b. *Notereko azy hividy fiarakodia
past-force-1sg(gen) 3sg(acc) fut-buy car

(52) a. ??Namela aho fa handeha any NY izy
past-allow 1sg(nom) COMP fut-go to NY 3sg(nom)
b. *Navelako azy handeha any NY
past-allow-1sg(gen) 3sg(acc) fut-go to NY

As the above examples show, the complement-clause verb of Type C complementation is tensed; however, tense agreement is observed between the main-clause verb and the complement-clause verb. Let us see the following as an example:

(53) Nanery azy {handeha/*nandeha} any NY aho, fa tsy nandeha izy
past-force 3sg(acc) {fut-go/*past-go} to NY 1sg(nom), but NEG past-go 3sg(nom)
'I forced him to go, but he didn't'

The past tense of the complement-clause verb implies that the causee actually went to NY, making it sound contradictory to add "he didn't go". The future tense, on the other hand, does not have such an implication; therefore, it is not contradictory to add "he didn't go". Thus the complement-clause verb tense serves to distinguish implicativity. [16]

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When the main-clause causative verb is in the future tense, it logically follows that only non-implicative future tense can appear in the complement-clause verb. This proves correct as the following example indicates:

(54) Hanery azy {handeha/*mandeha/*nandeha} any NY aho
fut-make him {fut-go/*present-go/*past-go} to NY 1sg(nom)
'I will make him go to NY'

To sum up the characteristics of Type C complementation:

(55) a. The sentence has the word order VOS, with O being a complement clause.
b. The complement-clause agent is expressed in the accusative case.
c. The complement verb is tensed and tense agreement is observed.
d. *fa* cannot occur in this complementation.

3. Malagasy Complementation and Givón's Binding Hierarchy

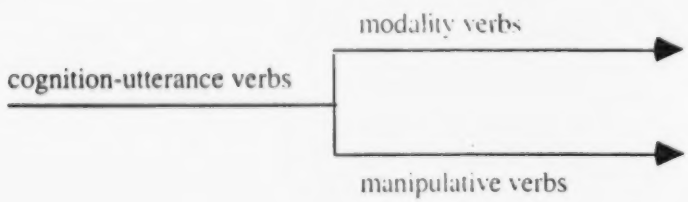
Givón (1980, 1990) proposes the concept of "binding" to capture systematic and iconic correlations between the semantics of complement-taking verbs and the syntactic structure of their complements. [17] "Binding" is defined as "The stronger the influence exerted over the agent of the complement clause by the agent of the main-clause verb, by whatever means, the higher is the main-clause verb on the binding scale" (Givón 1980:335). The basic claim is summarized as follows:

(56) The higher a verb is on the binding scale, the less would its complement tend to be syntactically coded as an independent/main clause. (Givón 1980:337)

Givón (1980, 1990) classifies complement-taking verbs into three major classes as in (57) and demonstrates, with cross-linguistic evidence, that manipulative verbs and modality verbs occupy higher positions on the binding scale than cognition-utterance verbs: [18]

(57) (i) Cognition-utterance verbs ('say', 'think', 'know', etc.)
(ii) Manipulative verbs ('order', 'cause', 'tell', 'force', etc.)
(iii) Modality verbs ('want', 'succeed', 'begin', 'intend', 'try', etc.)

(58)



WEAKEST BOND <----------> STRONGEST BOND

As for cognition-utterance verbs, Givón (1980:345) postulates the following scale and cites cross-linguistic evidence that the higher cognition-utterance verbs on the scale tend to develop either modality or manipulative senses:

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(59) 'say' < 'think < 'decide' < 'hope' < 'want'
'believe' 'agree' 'remember'
'know' 'expect' 'forget'
weak bond <----------> strong bond

The binding of the verb correlates negatively with the degree to which its complement appears syntactically similar to a main clause. More specifically,

(60) The higher a verb is on the binding scale,
(i) the less is the agent in its complement/embedded clause likely to exhibit the case-marking characteristic of main-clause subjects/agents/topics
(ii) the less is the verb of its complement clause likely to exhibit the tense-aspect-modality markings characteristic of main clauses
(iii) the more is the verb in its complement clause likely to be predicate-raised, i.e. lexicalized as one word with the main verb
(iv) the less the main clause and the subordinate clause are likely to be separated by a subordinator (or a physical pause)

(Givón 1980:338, 1990:560-561)

It is now rather obvious that Malagasy verbs that take Type A, Type B, and Type C complementation described in §2 may correspond to cognition-utterance verbs, modality verbs, and manipulative verbs, respectively. This section aims to examine how Malagasy verbal complementation described in §2 reflects the syntactic ramifications (60).

The overall picture

The following is a summary chart that shows which Malagasy verb can take which complementation type. In the columns of Type A and Type B, it is indicated whether the occurrence of *fa* is obligatory, optional, or prohibited (indicated by √, (√), and *, respectively):[19]

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(61)

Verbs	meaning	TypeA	fa	TypeB	fa	TypeC
milaza	say	√	√	√	√	√
mahafantatra	know	√	√	√	√	√
mino	believe	√	√	√	(√)	√
faly	be happy	√	√	√	(√)	*
mandre	hear	√	√	√	(√)	√
mahita	see, find	√	√	√	(√)	√
manapakevitra	decide	√	√	√	(√)	*
manaiky	agree	√	√	√	(√)	*
manantena	hope, expect	√	√	√	(√)	√
mahatadidy	remember	√	√	√	*	√
manadino	forget	√	√	√	*	√
tia	like, want	√	(√)	√	*	√
mikasa	intend	*		√	*	*
manandrana	try	*		√	*	*
manomboka	begin	*		√	*	*
mahavita	finish	*		√	*	*
manajanona	stop	*		√	*	?
avela-	allow, let	√	*	*		*
mamela	allow, let	??		*		√
motere-	force, make	√	*	*		*
manery	force, make	?		*		√

Using the above chart, let us consider what kinds of verbs take which types of complement clause. First we can observe that cognition-utterance verbs and non-active forms of manipulative verbs can take Type A complements, but modality verbs can't.

As for Type B complement, modality verbs typically take it, but manipulative verbs can't. It is well expected that higher cognition-utterance verbs on the binding scale (cf. (59)) may take a Type B complement, but what is peculiar is that in addition to higher-positioned verbs such as 'hope', and 'want', verbs as low on the scale as 'say', 'believe', 'know' can take it:

(62) Milaza fa handeha izy
pres-say COMP fut-go 3sg(nom)
'S/he says that s/he will go'

(63) Mino (fa) hianatra teny angilisy aho
pres-believe (COMP) fut-study English 1sg(nom)
w/ fa: 'It is likely that I will study English'
w/o fa: 'I believe that I will study English'

(64) Mahafantatra fa handeha any NY aho.
pres-know COMP fut-go to NY 1sg(nom)
'I know that I will go to NY'

As for Type C complement, active forms of manipulative verbs can take it, but modality verbs can't. Again, higher cognition-utterance verbs on the binding scale are expected to take a Type C complement (and it is indeed the case with verbs like 'hope' and 'want'), but verbs as low on the hierarchy as 'say' and 'know' can take it as well.

In sum, cognition-utterance verbs in Malagasy are peculiar in that they can participate in complementation patterns that stronger-binding verbs (manipulative/modality verbs) typically take. Except for this, we could say that there is a correlation between cognition-utterance verbs and Type A complement, modality verbs and Type B complement, and manipulative verbs and Type C complement.

Syntactic dimensions: case-marking, verb-form and co-lexicalization

Let us next consider how (60 i-iii) are reflected in the Malagasy complementation patterns. As for (60 i), it was observed in §2 that a complement-clause agent is expressed just like a main-clause subject in Type A complements, whereas it is not overtly expressed in Type B complements, and it is expressed as a main-clause object in Type C complements.

As for (60 ii), it was shown in §2 that no tense agreement generally exists between the main-clause verb and the complement-clause verb in Type A complementation, but there is tense agreement of some sort in Type B complementation and Type C complementation. [20]

Let us next turn to (60 iii). As far as our data are concerned, there is no co-lexicalization of the complement-clause verb and the main-clause verb in either Type A, Type B, or Type C complementation. Since Type B complementation, however, has the main-clause verb and the complement-clause verb in sequence, it is conceivable that Type B complementation may develop co-lexicalization. The following examples may be considered examples of co-lexicalization:

(65) a. te-hanaiky hanasa ny zaza Rasoa fa tsy afaka (Keenan 1976:279)
want-agree wash the child Rasoa but not free
'Rasoa wants to agree to wash the child but (she) isn't free (to do so)'

b. ta-handeha rahampitso izy (Malzac 1893, 1963:857)
want-fut-go tomorrow 3sg(nom)
'Il veut partir demain' (S/he wants to go tomorrow)

(66) Miana-miteny io zaza io (Malzac 1893, 1963: 138)
pres-learn pres-speak that child
'Cet enfant commence à parler' (That child starts to talk)

The complete forms of *te/ta* and *miana* are *tia* and *mianatra*, and here they cliticize to the complement-clause verbs. I am not sure, though, how common and wide-spread this phenomenon is.

It can be concluded from the above that syntactic ramifications (60 i-iii) are observed in the three complementation patterns of Malagasy.

Occurrence of the complementizer *fa*

Lastly, let us consider how (60 iv) is reflected in Malagasy complementation. It was observed in §2 and summarized in Chart (61) that cognition-utterance verbs generally take *fa*

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obligatorily in Type A complementation, except for the verb *tia* ('like', 'want'), which takes *fa* optionally. Notice that the verb 'want' is cross-linguistically situated higher on the binding scale than more typical cognition-utterance verbs such as 'say', 'believe', and 'know' (cf. (59)). Furthermore, manipulative verbs when they take a Type A complement cannot have *fa*. Thus, we may generalize for Type A complementation that the higher a verb is on the binding scale, the less likely it is to take *fa*.

Let us next consider the occurrence of *fa* in Type B complementation. Chart (61) indicates that *fa* is impossible for modality verbs and stronger-binding cognition-utterance verbs such as *mahatadidy* ('remember'), *manadino* ('forget'), and *tia* ('want'). For other cognition-utterance verbs, *fa* is either obligatory or optional in Type B complementation. This again supports the generalization that the higher a verb is on the binding scale, the less likely it is to take *fa*. As for Type C complementation, it is impossible to have *fa*, regardless of the verb class.

To conclude, we may propose the following generalization:

(67) The higher a verb is on the binding scale, the less likely it is to take *fa*.

This observation shows that Malagasy complementation reflects (60 iv), namely, the higher a main-clause verb is on the binding scale, the less the main clause and the subordinate clause are likely to be separated by a subordinator.

4. Conclusion

The aim of this paper has been two-fold: description of Malagasy verbal complementation and examination of the binding hierarchy with respect to the Malagasy data. For the former, this paper has classified Malagasy verbal complementation into three types, described structural/semantic properties of each type, and provided a list of verbs that take each complementation type. For the latter, it has been shown that Malagasy verbal complementation generally supports Givón's claims about syntactic reflections of the binding hierarchy, and that the occurrence of *fa* can be accounted for in terms of the strength of binding of the main-clause verb.

NOTES

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[1] See Dyen (1971) for a succinct overview of the language.

[2] The following abbreviations are used in this paper: pres=present, fut=future, nom=nominative, acc=accusative, gen=genitive, incl=inclusive, CAUS=causative, COMP=complementizer, NEG=negation, QUOT=quotation marker, sg=singular, pl=plural,

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1=first person, 2=second person, 3=third person

[3] Richardson (1885:144) gives 'for', 'but', 'therefore', 'because', 'that' as the meanings of *fa*. Keenan (1976:274) notes that "We note that *fa* above is a very general sentential connective in Malagasy. It is often used with contrastive effect. like *but* in English, but also serves to introduce sentential complements of verbs of thinking, saying, etc., and as well serves as a largely contentless discourse connective."

[4] See Keenan (1976:276-277) for his arguments for positing an underlying VOS order for these sentences.

[5] There is a significant semantic difference between the sentence with *fa* and the one without *fa*: the sentence with *fa* means "I like the fact that he is going to study English/I am happy that he is going to study English", whereas the sentence without *fa* means "I wish he would study English". The difference seems to concern factivity of the complement.

[6] I use the term "tense agreement" in the sense that the complement-clause verb tense is dependent in one way or another on the main-clause verb tense. cf. Givón (1990:531).

[7] Keenan (1976) calls this rule Equi-1 and notes that "It is not fully clear whether Equi-1 is obligatory"; see Keenan (1976:276-278) for more details.

[8] This construction corresponds to Keenan's (1976) Equi 2 and to Randriamasimanana's (1986) Equi 1.

[9] Keenan (1976:278) and Randriamasimanana (1986:501) state that no complementizer can be present in Type B complement ("Equi-2" construction in Keenan and "Equi-1" construction in Randriamasimanana), but it seems to be the case that, at least for some verbs, the complementizer *fa* can optionally be present in Type B complements. This will be discussed more later below.

[10] The complementation of the verb *tia* ('like', 'want') is unlike other verbs in that the main-clause verb tense is expressed by the complement-clause verb: the replacement of *miteny* by *niteny* (past-speak) and *hiteny* (fut-speak) would make the sentence mean "I wanted to speak French" and "I will want to speak French", respectively.

[11] Randriamasimanana (1986:500) states that future tense marker is mandatory for Type B construction (="Equi 1" in his term), but it appears to be the case that future tense is not always mandatory.

[12] See Keenan (1976) and Randriamasimanana (1986) as they formulate "Raising to Object (R-O)" to derive this complement type.

[13] Randriamasimanana (1986:536), however, lists the verb *manaiky* as a raising verb.

[14] See Randriamasimanana (1986) for a detailed study of the causatives of Malagasy.

[15] Randriamasimanana (1986:6) calls *amp(a)-*, *manery* and *mamela* "neutral Directive", "coercive", and "permissive", respectively. See Randriamasimanana (1986: ch.1) for other Malagasy causative construction types. Also, Randriamasimanana (1986) distinguishes between

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raising and equi, and derives (49b) and (50b) by Equi-2 in his term. In this paper, I will not be concerned with the difference between raising and equi, and stick to the surface similarity between the two. cf. Langacker (1993).

[16] The same contrast is observed when *nanery* (past-order) is replaced by *namela* (past-allow). Randriamasimanana (1986:77-78) claims that there is no entailment in coercive and permissive causatives, but his examples use complement-clause verbs in future tense.

[17] See Cooreman (1984) for an application of the concept to Chamorro.

[18] See Givón (1990:518, 533) for the semantic definitions of each class of verbs. Note, especially, that his usage of "modality" is somewhat different from the common usage in the linguistics literature; he defines modality verbs as "The main verb codes inception, termination, persistence, success, failure, attempt, intent, obligation or ability --- vis-a-vis the complement state/event" (Givón 1990:533).

[19] This chart is based on a limited number of sentences I checked with the consultant. It is possible, I am aware, that particular choice of lexical items or pragmatic factors may have affected the results. Future research is necessary to determine whether (or how) discourse pragmatics --- in addition to the matrix verb semantics --- can influence the occurrence of *fa*.

[20] It is a task for future research to see if there is any restrictions on aspect and modality for each complementation type.

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